MasterJoint CHR 195NP

One-component, pick resistant, non-sag, elastomeric, polyurethane sealant

Material Description

MasterJoint CHR 195NP is a one component, moisture curing, thixotropic polyurethane sealant for security and institutional uses requiring elasticity, abrasion and puncture resistance, with superior color integrity.

Areas of Application

- Horizontal and vertical surfaces for seamless sealing.
- Interior and exterior use in various construction projects.
- For use in substrates: Concrete, Masonry, Granite, Marble, Brick, Metals and woods
- Sealing storefronts for durable and weather-resistant protection.
- Expansion joints to accommodate movement and prevent cracking.
- Curtain walls and panel walls for airtight and watertight sealing.
- Use with precast units for enhanced structural integrity.
- Aluminium, vinyl, and wood window frames to provide flexible, long-lasting seals.
- Public infrastructure such as prisons, schools, and stadiums for secure and reliable sealing.
- Large-scale surfaces like parking decks and plazas.
- Suitable for non-chlorinated water immersion situations such as wet wells and manholes.
- Wastewater treatment plants, dams, and spillways for high-performance sealing in demanding environments.
- Storm drains to prevent water infiltration and ensure system integrity.

Characteristics & Benefits

- UV stable - non-staining, non-yellowing, non-chalking, low dirt pickup, self-cleaning.
- Excellent puncture and abrasion resistance.
- Improved gunability and workability - easy tooling.
- Pick resistant - security applications
- Movement capability ±25% - expands and contracts with joint movement.
- In Compliances with requirements of:
  - ASTM C 920, Type S, Grade NS, Class 25, Use NT, T, M, A, and I
  - Federal Specification TT-S-00230C/Type II/Class A.
  - Corps of Engineers CRD-C-541, Type II, Class A
  - Specification Green Building Council of Australia, Green Star Buildings V1 Revision C, Exposure to Toxins Credit 13- Meet GBCA VOC content requirement.
  - AS 4020-2018: drinking water applications.

Performance Data

Property	Test Method	Value (Average)
Movement capability (MAF)	ASTM C 719	± 25%
Tensile strength (MPa)	ASTM D 412	3.6
Ultimate elongation at break	ASTM D 412	680%
Hardness at standard conditions (Shore A)	ASTM C 661	50 ± 0.7
Adhesion in peel, pli Glass Aluminium Concrete	ASTM C 794	 53 CF* 66 CF* 40 CF*
Tear Strength** (kN/m)	ASTM D624	17.2
Stain and colour change	ASTM C 510	None
Resistant to Weathering***	ASTM C793	Pass
Tack-free time (min)	ASTM C 679	45-120
Volatile Organic Compounds (g/litre)	ASTM D3960	53
Service temperature range (°C)		-40 to 90
Water immersion, 50° C	ASTM C 1247	Pass

Note: The data represents information typically required to verify performance.
** Cohesive failure in Dry condition. ** Type C*
****Accelerated weathering after UV exposure and after freezing and bending*

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Estimating Data

Joint Size (mm)	Metres per litre	Metres per 600ml Sausage
5 x 5	40	24
10 x 10	10	6
12 x 12	6.95	4.17
15 x 7.5	8.88	5.33
20 x 10	5.00	3.0
25 x 12.5	3.20	1.92
30 x 15	2.22	1.33
40 x 20	1.33	0.8

Application

For information on joint design, surface preparation and priming, refer to "**Joint Sealants**" Application Guide.

Joint Preparation

- In optimum conditions, the depth of the sealant should be ½ the width of the joint.
- In deep joints, the sealant depth must be controlled by closed cell backer rod or soft backer rod. Where the joint depth does not permit the use of backer rod, a bond breaker (polyethylene strip) must be used to prevent three-point bonding.
- To maintain the recommended sealant depth, install backer rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed cell backer rod should be about 3 mm larger in diameter than the width of the joint to allow for compression. Soft backer rod should be approximately 25% larger in diameter than the joint width. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer rod.

Surface Preparation

- Substrates must be structurally sound, fully cured, dry and clean. Substrates should always be free of the following: dirt, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing or curing and parting compounds, membrane materials and sealant residue.

CONCRETE, STONE, AND OTHER MASONRY

- Clean by grinding, sandblasting, or wire brushing to expose a sound surface free of contamination and laitance.

WOOD

- New and weathered wood must be clean, dry and sound. Scrape away loose paint to bare wood. Any coatings on wood must be tested to verify adhesion of sealant or to determine an appropriate primer.

METAL

- Remove scale, rust, and lose coatings from metal to expose a bright white surface. Any coatings on metal must be tested to verify adhesion of sealant or to determine an appropriate primer.

Priming

- **MasterJoint CHR 195NP** is considered a non-priming sealant, but special circumstances or substrates may require a primer. It is the user's responsibility to check the adhesion of the cured sealant on typical test joints at the project site before and during application. Refer to product data sheet on **MasterJoint PRI 695** and consult Technical Services for additional information.
- For immersion applications, **MasterJoint PRI 695** must be used.
- Apply primer full strength with a brush or clean cloth. A light, uniform coating is sufficient for most surfaces. Porous surfaces require more primer; however, do not over-apply.
- Allow primer to dry before applying **MasterJoint CHR 195NP**. Depending on temperature and humidity, primer will be tack-free in 15–120 minutes.
- Priming and sealing must be done on the same day.

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Sealant Application

- MasterJoint CHR 195NP comes ready to use. Apply by professional gun. Do not open sausages, until preparatory work has been completed.
- Fill joints from deepest point to the surface by holding a suitably sized nozzle against the back of the joint.
- Dry tooling is recommended. Do not use soapy water when tooling. Tooling results in the correct bead shape, a neat joint, and maximum adhesion.

For Best Performance

- Do not allow uncured MasterJoint CHR 195NP to come into contact with alcohol-based materials or solvents.
- Do not apply polyurethane sealants in the vicinity of uncured silicone or modified silicone sealants.
- MasterJoint CHR 195NP should not come in contact with oil-based caulking, polysulfides or fillers impregnated with oil, asphalt or tar.
- All security applications require priming.
- When MasterJoint CHR 195NP is to be used in areas subject to water immersion, cure for 21 days at 25°C and 50% relative humidity. Do not use in swimming pools or other submerged conditions where the sealant will be exposed to strong oxidizers. Avoid submerged conditions where water temperatures will exceed 50°C.
- Protect unopened containers from heat and direct sunshine.
- In cool or cold weather, store container at room temperature for at least 24 hours before using.
- Do not apply over freshly treated wood; treated wood must have weathered for at least 6 months.
- All horizontal applications require the use of a primer.
- Low temperatures will extend curing times.
- Substrates such as copper, stainless and galvanized typically require the use of a primer; MasterJoint PRI 695 is acceptable. An adhesion test is recommended for any other questionable substrate.

Curing

The cure of MasterJoint CHR 195NP varies with temperature and humidity. The following times are based on 23°C, 50% relative humidity and a joint 12 mm wide and 6 mm deep.

- Skins within 24 hours
- Functional after 3 days
- Full cure after approximately 7 days
- Minimum cure time before continuous water immersion: 21 days

Note: For joints thicker than 6 mm or at lower temperatures, allow a longer cure period, particularly before immersion service.

Durability under immersion:

After a 21-day cure, MasterJoint CHR 195NP was tested in accordance with ASTM C1247-14 and withstood continuous water immersion at 50°C with ±20% movement, with only localised adhesion loss (total failed area 480 mm^2 across three specimens).

Cleaning

Immediately after use, clean equipment with Thinners. Use proper precautions when handling solvents. Remove cured sealant by cutting with a sharp edge tool. Remove thin films by abrading.

Packaging

20 x 600 ml sausages to a carton.

Storage & Shelf Life

Store in original, unopened packaging under normal conditions. MasterJoint CHR 195NP has shelf life of 12 months.

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Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

Specification Clause

All joint sealing works shall utilise a high-performance, one-component, aliphatic polyurethane sealant with superior elasticity, color stability, and resistance to puncture equivalent to MasterJoint CHR 195. For Pick resistant and security applications, a suitable sealant meets the performance mentioned in the performance data table. For applications in water tanks to be approved for potable water contact as per AS/NZS 4020:2018, with full cure achieved in one week under standard conditions.

Disclaimer

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